



Agency for Healthcare Research and Quality
Advancing Excellence in Health Care



NATIONAL
GUIDELINE
CLEARINGHOUSE

General

Guideline Title

Second-trimester abortion.

Bibliographic Source(s)

American College of Obstetricians and Gynecologists (ACOG). Second-trimester abortion. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2013 Jun. 13 p. (ACOG practice bulletin; no. 135). [106 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The grades of evidence (I-III) and levels of recommendations (A-C) are defined at the end of the "Major Recommendations" field.

The following recommendations and conclusions are based on good and consistent scientific evidence (Level A):

- Cervical preparation is recommended before dilation and evacuation (D&E) to decrease risk of cervical trauma.
- Mifepristone followed in 24–48 hours by misoprostol is the most effective regimen for second-trimester medical abortion.
- Misoprostol as a single agent is effective for medical abortion.
- Administration of prophylactic antibiotics decreases the risk of infection after surgical abortion and, therefore, should be provided to all patients undergoing D&E.
- Except for hysteroscopic sterilization, diaphragm, or cervical cap, all forms of contraception can be considered after second-trimester abortion and initiated on the day of the procedure.

The following recommendations and conclusions are based on limited or inconsistent scientific evidence (Level B):

- D&E is associated with fewer complications than medical abortion involving misoprostol regimens.
- When there is a suspicion of abnormal placentation, D&E is the preferred abortion method, and preparations should be made for possible hemorrhage by ensuring the procedure is performed at an appropriate facility with accessibility to blood products, interventional radiology, and the capability to perform a hysterectomy if necessary.
- The use of vasopressin in the paracervical block may decrease blood loss from D&E.
- Methylergonovine maleate is an appropriate first-line uterotonic agent unless contraindicated, as in patients with hypertension. Misoprostol is an effective agent in the setting of postabortion hemorrhage, and doses of 800–1,000 micrograms are recommended.
- If refractory bleeding is thought to be due to atony or lower uterine segment bleeding, a Foley catheter or intrauterine balloon should be

inserted to tamponade the endometrial cavity.

- Because the risk of uterine rupture associated with prior cesarean delivery is similar to the risk among women without a prior cesarean delivery, guidelines support the safety of misoprostol specifically and medical abortion generally in women with one prior cesarean delivery.

The following recommendations are based primarily on consensus and expert opinion (Level C):

- In order to ensure access to D&E, residency training programs should offer integrated abortion training that includes second-trimester D&E.
- All physicians should facilitate timely referrals for abortion care to reduce delays in accessing services.
- Interventions to improve and facilitate early identification of pregnancy should be encouraged, including efforts to educate women about the signs and symptoms of pregnancy.

Definitions:

Grades of Evidence

I Evidence obtained from at least one properly designed randomized controlled trial

II-1 Evidence obtained from well-designed controlled trials without randomization

II-2 Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group

II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

Levels of Recommendations

Level A — Recommendations are based on good and consistent scientific evidence.

Level B — Recommendations are based on limited or inconsistent scientific evidence.

Level C — Recommendations are based primarily on consensus and expert opinion.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Unwanted pregnancy

Guideline Category

Management

Treatment

Clinical Specialty

Emergency Medicine

Obstetrics and Gynecology

Intended Users

Physician Assistants

Physicians

Guideline Objective(s)

To provide evidence-based guidelines for the medical and surgical methods of second-trimester termination as well as for the management of associated complications

Target Population

Women seeking second-trimester abortion for a variety of medical and social reasons, such as:

- Delayed awareness of pregnancy
- Delayed access to health care or insurance/funding
- Difficulties in locating and traveling to a provider
- Poverty, lower education level, and having multiple disruptive life events
- Detection of major anatomic or genetic anomalies in the second trimester
- Obstetric and medical indications such as preeclampsia and preterm premature rupture of membranes, among other conditions
- Pregnancy failure before 20 weeks of gestation and fetal demise

Interventions and Practices Considered

1. Dilation and evacuation (D&E)
2. Mifepristone
3. Misoprostol
4. Prophylactic antibiotics
5. Methylergonovine maleate
6. Vasopressin
7. Foley catheter or intrauterine balloon
8. Residency training programs in D&E
9. Reducing delays that contribute to second-trimester identification
10. Improve and facilitate early identification of pregnancy

Major Outcomes Considered

- Procedural complications, such as uterine perforation, infection, incomplete abortion
- Preservation of fetal anatomy
- Cost-effectiveness
- Surgical benefits and risks
- Maternal morbidity and mortality

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Description of Methods Used to Collect/Select the Evidence

The MEDLINE database, the Cochrane Library, and the American College of Obstetricians and Gynecologists' own internal resources and documents were used to conduct a literature search to locate relevant articles published between January 1990 to November 2012. The search was restricted to articles published in the English language. Priority was given to articles reporting results of original research, although review articles and commentaries also were consulted. Abstracts of research presented at symposia and scientific conferences were not considered adequate for inclusion in this document. Guidelines published by organizations or institutions such as the National Institutes of Health and the American College of Obstetricians and Gynecologists were reviewed, and additional studies were located by reviewing bibliographies of identified articles. When reliable research was not available, expert opinions from obstetrician–gynecologists were used.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Grades of Evidence

I Evidence obtained from at least one properly designed randomized controlled trial

II-1 Evidence obtained from well-designed controlled trials without randomization

II-2 Evidence obtained from well-designed cohort or case–control analytic studies, preferably from more than one center or research group

II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Studies were reviewed and evaluated for quality according to the method outlined by the U.S. Preventive Services Task Force. See the "Rating Scheme for the Strength of the Evidence" field.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Analysis of available evidence was given priority in formulating recommendations. When reliable research was not available, expert opinions from obstetrician-gynecologists were used. See also the "Rating Scheme for the Strength of the Recommendations" field regarding Level C recommendations.

Rating Scheme for the Strength of the Recommendations

Levels of Recommendations

Level A — Recommendations are based on good and consistent scientific evidence.

Level B — Recommendations are based on limited or inconsistent scientific evidence.

Level C — Recommendations are based primarily on consensus and expert opinion.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

Practice Bulletins are validated by two internal clinical review panels composed of practicing obstetrician-gynecologists generalists and sub-specialists. The final guidelines are also reviewed and approved by the American College of Obstetricians and Gynecologists (ACOG) Executive Board.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Appropriate provision and management of second-trimester abortion
- Decreased incidence of complications
- Medical abortions involving mifepristone combined with misoprostol have faster times to completion, decreased hospital time, and a lower risk of retained placenta, compared with regimens with misoprostol used alone.

Potential Harms

- The mortality rate associated with abortion is low (0.6 per 100,000 legal, induced abortions), and the risk of death associated with childbirth is approximately 14 times higher than that with abortion.
- Rare complications associated with both dilation and evacuation (D&E) and medical abortion include hemorrhage, cervical laceration, retained products of conception, and infection. Uterine perforation can occur with D&E, whereas uterine rupture can occur with medical

abortion.

- Other rare complications may include disseminated intravascular coagulation and embolism.
- Adverse events, such as pain and gastrointestinal adverse effects can occur.

Qualifying Statements

Qualifying Statements

The information is designed to aid practitioners in making decisions about appropriate obstetric and gynecologic care. These guidelines should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institution or type of practice.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Foreign Language Translations

Patient Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Safety

Timeliness

Identifying Information and Availability

Bibliographic Source(s)

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2013 Jun

Guideline Developer(s)

American College of Obstetricians and Gynecologists - Medical Specialty Society

Source(s) of Funding

American College of Obstetricians and Gynecologists (ACOG)

Guideline Committee

American College of Obstetricians and Gynecologists (ACOG) Committee on Practice Bulletins—Gynecology

Composition of Group That Authored the Guideline

This Practice Bulletin was developed by the Committee on Practice Bulletins—Gynecology with the assistance of Jody Steinauer, MD, Andrea Jackson, MD, and Daniel Grossman, MD.

American College of Obstetricians and Gynecologists (ACOG) committees are created or abolished and their overall function defined by the Executive Board. Appointments are made for one year, with the understanding that such appointment may be continued for a total of three years. The majority of committee members are Fellows, but Junior Fellows also are eligible for appointment. Some committees may have representatives from other organizations when this is particularly appropriate to committee activities. The president elect appoints committee members annually.

Financial Disclosures/Conflicts of Interest

Not stated

Guideline Endorser(s)

Society for Maternal-Fetal Medicine - Nonprofit Organization

Society of Family Planning - Professional Association

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: None available

Print copies: Available for purchase from the American College of Obstetricians and Gynecologists (ACOG) Distribution Center, PO Box 933104, Atlanta, GA 31193-3104; telephone, 800-762-2264; e-mail: sales@acog.org. The ACOG Bookstore is available online at the [ACOG Web site](#) .

Availability of Companion Documents

None available

Patient Resources

The following is available:

- Frequently asked questions: Induced abortion. Atlanta (GA): American College of Obstetricians and Gynecologists (ACOG); 2011 Oct. 3 p. Electronic copies: Available in Portable Document Format (PDF) from the [American College of Obstetricians and Gynecologists \(ACOG\) Web site](#) . Copies are also available in [Spanish](#) .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This summary was completed by ECRI Institute on July 30, 2013.

Copyright Statement

Copyright June 2013 by the American College of Obstetricians and Gynecologists. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, posted on the Internet, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from the publisher.

Requests for authorization to make photocopies should be directed to Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400.

Disclaimer

NGC Disclaimer

The National Guideline Clearinghouse^{â„¢} (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the [NGC Inclusion Criteria](#).

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.